



State Heart Disease and Stroke Prevention Program Addresses High Blood Pressure

High blood pressure (HBP), defined by systolic pressure of 140 mm Hg or more or diastolic pressure of 90 mmHg or more, affects an estimated 50 million people in the United States.¹ One in four adults has high blood pressure.² According to the Seventh Report of the Joint National Committee on Prevention Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7), about 30% of persons with high blood pressure are unaware of their condition and only 34% have their high blood pressure controlled.³

High blood pressure increases the risk of heart disease and stroke; even modest elevations in blood pressure are associated with an increase in disease and morbidity. Results from large-scale trials show that a 5mm Hg reduction in diastolic blood pressure corresponds to a 21% reduction in heart disease risk.⁴ Because the consequences of high blood pressure are so serious, early detection, treatment, and control are critical. About 50% of people who suffer a first heart attack and about 66% of people experiencing a first stroke have blood pressure above 160/95 mm Hg.⁵ The *Healthy People 2010* goal is to increase the percentage of people who have their high blood pressure under control to 50%.

Treatment of high blood pressure includes behavior changes and drug therapy. Physical activity and a low-salt diet, for example, can be very effective in controlling blood pressure. To help with therapeutic decisions, the JNC 7 report establishes three risk groups with recommended treatment. Adults should have their blood pressure checked regularly. See JNC 7 guidelines for treatment recommendations (www.nhlbi.nih.gov/guidelines).

Blood Pressure Classification*	Blood Pressure level (mm Hg)
Normal	Systolic BP <120 AND Diastolic BP <80
Pre-Hypertension	Systolic BP= 120-139 OR Diastolic BP= 80-89
Stage 1 Hypertension	Systolic BP= 140-159 OR Diastolic BP= 90-99
Stage 2 Hypertension	Systolic BP= 160 or higher OR Diastolic BP= 100 or higher

*If the systolic and diastolic blood pressure measurements fall into two different categories, the blood pressure classification is the higher of the two categories. Source: The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure.

High Blood Pressure Activities in CDC-Funded State Heart Disease and Stroke Prevention Program

The Arkansas program addresses hypertension in African American males, in partnership with the American Heart Association (AHA), the Community Health Centers of Arkansas, the Arkansas Minority Health Commission, and the Arkansas Department of Health's Minority Health Office, and others.

The Maine program works to assure quality of care and compliance with guidelines through the implementation of AHA's Get with the Guidelines for CVD, in collaboration with its partners which include AHA and managed-care organizations.

The Oregon program analyzed Medicaid claims to determine the prevalence of CVD risk factors, including hypertension.

The Missouri program collaborates with the St. Louis Fire Department to provide blood pressure and cholesterol screenings, referral, and follow up to residents in inner-city neighborhoods. Persons with dangerously high blood pressure have been taken to hospitals.

The Wisconsin Program, working with its State Medicare Quality Improvement Organization and State Diabetes Program, analyzed Health Plan Employer Data and Information Set (HEDIS) indicators for hypertension.

The Virginia program has partnered with AHA on a blood pressure control media campaign.

State Heart Disease and Stroke Prevention Program: Take Action!

State Health Departments work to reduce the burden of stroke by promoting activities that can be implemented in health care, work sites, communities, and schools. For example, a state program might

- Promote policy development for system changes that ensure increased adherence to national guidelines for the prevention and control of high blood pressure through screening and follow-up, and provide education and training about the importance of implementing JNC 7 guidelines. Assure detection and follow-up services with employees for control of blood pressure at the worksite.
 - *Potential Partners:* local health care professional organizations, such as occupational health nurses, medical societies, health and safety manager, human resource managers, voluntary health care organizations, local health departments.
- Develop assessment tools for tracking high blood pressure treatment and control rates.
 - *Potential Partners:* primary care associations, federally-qualified health centers, managed care organizations, Medicare Quality Improvement Organization.
- Inform the public that high blood pressure is a major modifiable risk factor for heart disease and stroke, and that having blood pressure checked is an important first step in identifying and controlling high blood pressure, and reducing the risk of heart disease and stroke.
- Assure detection and follow-up services are available for controlling blood pressure and cholesterol in various settings including the work site and community.
 - *Potential Partners:* American Heart Association (AHA) affiliate, media, business, industry and human resource management, employee associations, unions, faith organizations, local minority nursing association, and local health departments.
- Collaborate on education and policy intervention programs to detect and control high blood pressure in high-risk groups.
 - *Potential Partners:* AHA affiliate, hospitals, federally-qualified health centers, business, industry and human resource management, employee associations, faith organizations, local minority nursing association, and local health departments
- Advocate for health care coverage to include blood pressure screening, treatment, and control, and rehabilitation services for heart attack and stroke survivors.
 - *Potential Partners:* AHA affiliate, business, industry and human resource management, employee associations, unions, third party payers, health care providers, local policy makers

Sources

1. Adams PF, Hendershot GE. Current Estimates from the National Health Interview Survey 1996. National Center for Health Statistics. *Vital and Health Statistics Series 10*, no. 200 (Hyattsville, MD: 1999).
2. American Heart Association. *Heart Disease and Stroke Statistics-2003 Update*. Dallas, TX: AHA.
3. *The Seventh Report of the the Joint National Committee on Prevention, Detection, Evaluation and treatment of High Blood Pressure* JNC 7 www.nhlbi.nih.gov/guidelines
4. Magnus P, Beaglehole R. The real contribution of the major risk factors to the coronary epidemics. *Archives of Internal Medicine* 2001;161:2657-60.
5. Hellermann JP, Goraya TY, Jacobsen SJ, Weston SA, Reeder GS, Gersh BJ, Redfield MM, Rodeheffer RJ, Yawn BP, Roger VL. Incidence of Heart Failure after Myocardial Infarction: Is It Changing over Time? *Arch Intern Med* 1997;157:2413-46.